

Help Out!



Project Presentation in KV Mobile Web Development, 30. June 2021
Alexander Gindlhumer, Lisa-Marie Huber, Mathias Wöß

Agenda

- What motivates us to do such a project? - Our **Motivation**
 - What did we achieve?
- How did we achieve it on a technical level? - Our **Effort**
- What can YOU expect from this website? - Our **Result**
- Where will the journey continue? - Our **Vision**

Our Motivation



Recap: Motivation

- The coronavirus pandemic caused **previously unknown levels of isolation** and **restrictions** for many people
- People face **anxiety**, **loneliness** and the **inability** to get the help they desperately need
- So our goals are:
 - **Providing** people with the **help** they need during the coronavirus pandemic
 - **Promote** and **reward solidarity** and acts of kindness
 - Making our work **future-proof** by keeping it relevant even after the pandemic
 - Connecting **grandparents** to their **grandchildren**
 - **Keeping it simple** so our grandmother approves



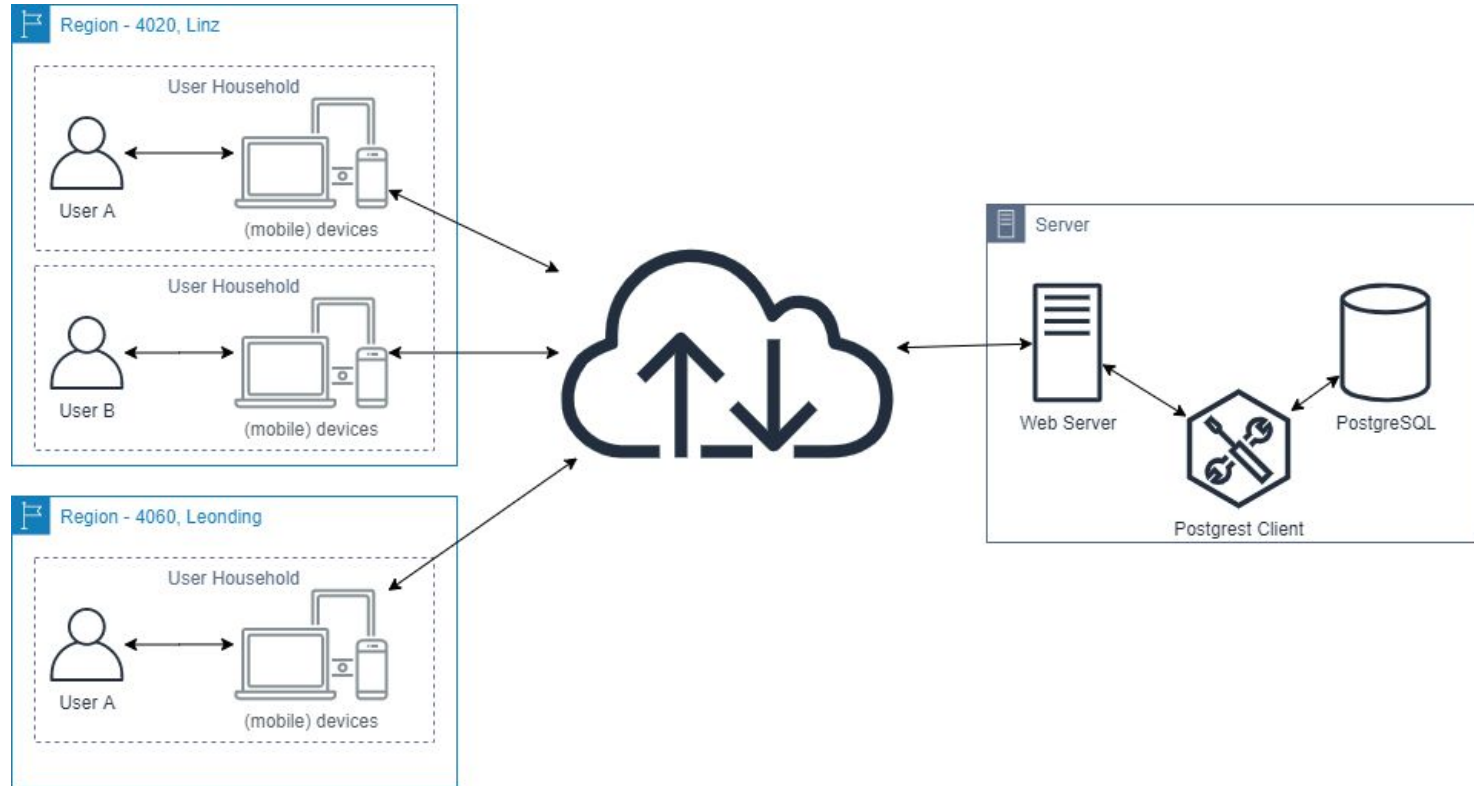
Features

- Platform for **acts of solidarity**
 - People with a need of or capabilities to help can **reach out and connect** with each other (also with **notifications!**)
 - Submit and search (also based on your **location**) for paid and voluntary services
- Easy to handle UI
 - Simplified and **responsive user experience** in mobile first style
 - Recognition of sessions for **easier access**
 - **Dark theme** for better visibility and smoother view
- Groundwork for **gamification** aspects
 - Leveling system that rewards people which actively participate
 - Recognition awards in form of daily/weekly **quests**, achievements and trophies

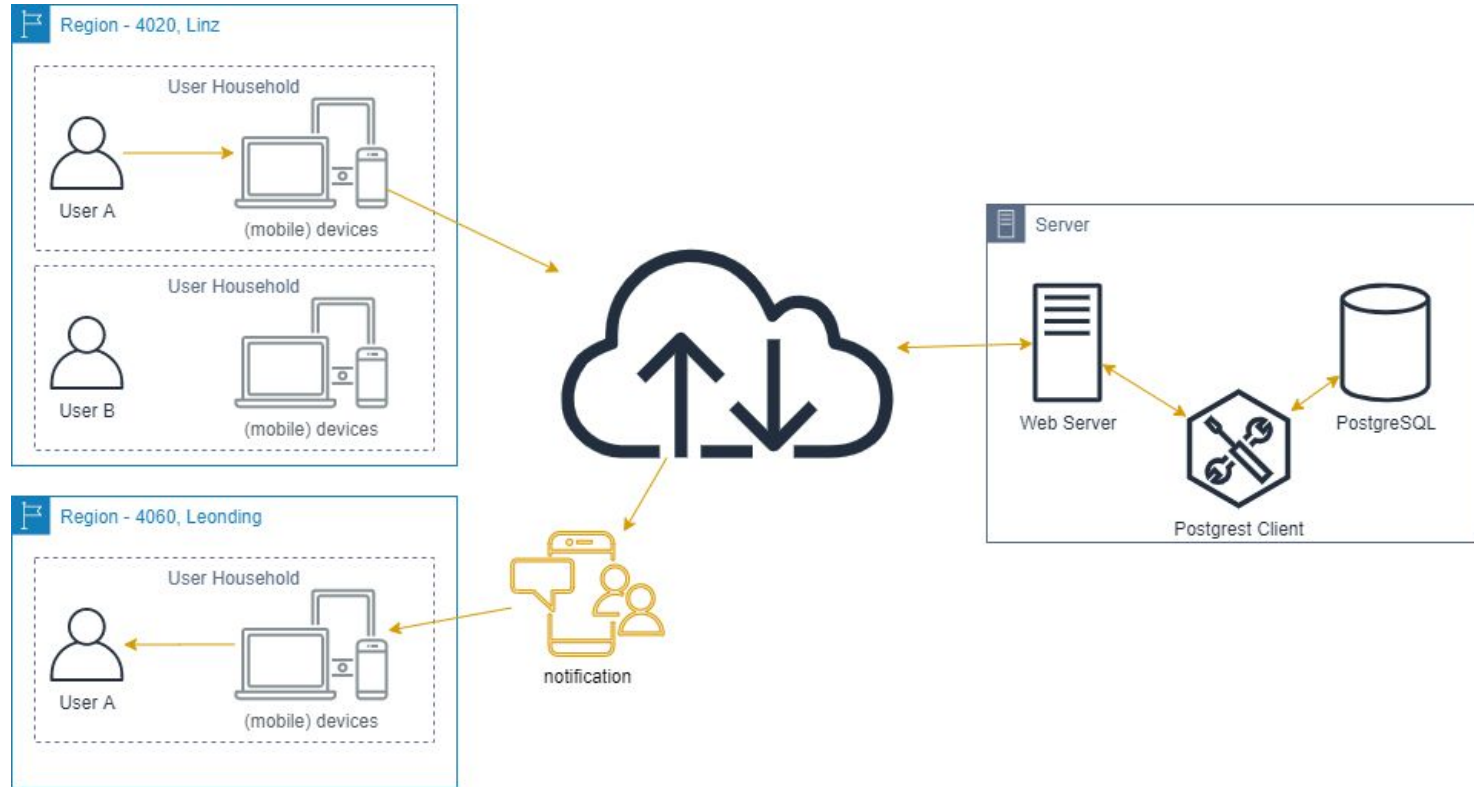
Our Effort



System Architecture



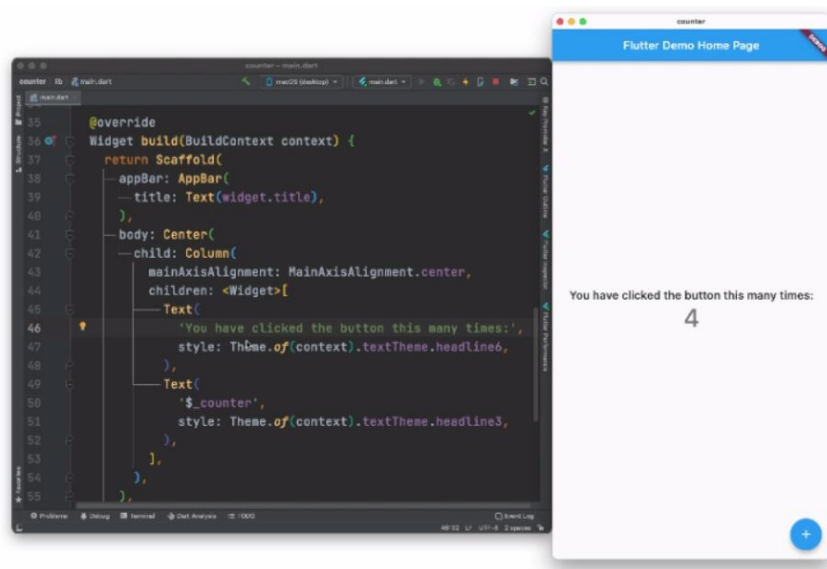
Typical Usage Model - Message Flow



Frameworks for Website Design

- Flutter

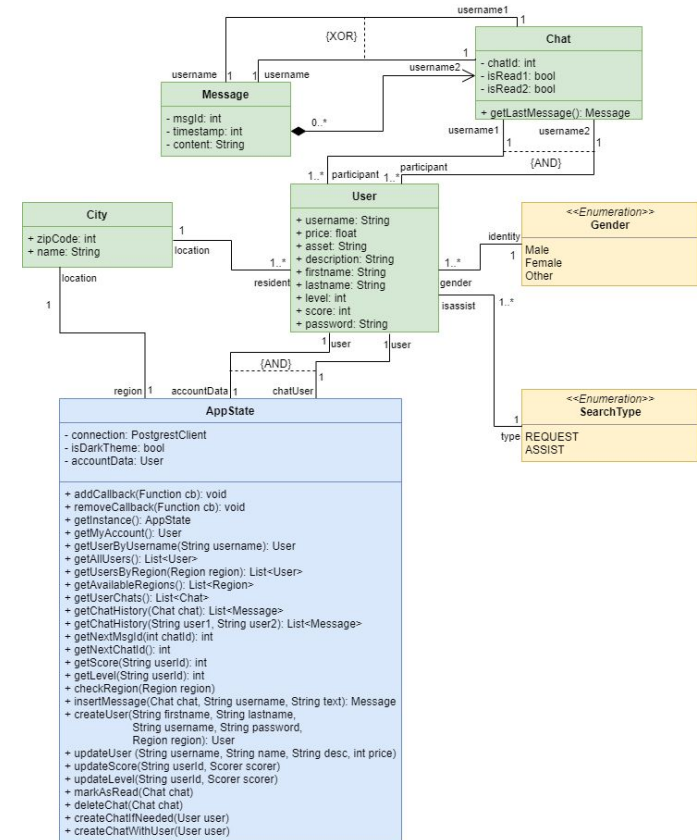
- **Cross-platform** (not only web)
- Material design integration
- UI is code (not html/xml)
- Hot-reload / realtime changes
- Written in *Dart*-language
- Ready to use UI-components
- **Responsive** components
- Allows export into **HTML/JS**
- **PWA** capabilities



- <https://flutter.dev/> (graphics source)

Supporting Technologies - Postgres

- Postgres is amongst the most popular and versatile RDBMS of all time
- Reliable backend system due to its maturity - even in the web content
- Information flow via a REST interface => CRUD
 - Dart/Flutter: [Postgrest](#)
 - Fast access for users
- Data model is simple but strongly relational
 - Green: Tables
 - Yellow: Enumerations
 - Blue: Controller (not in database)



Supporting Technologies - Geolocator



- What if we want to assume our location to **ease the search**?
 - **Solution**: Using device features to estimate position as well as **address**!
 - Two stage process:
 - [Geolocator](#) package to obtain position (**longitude** and **latitude**)
 - [OpenCage API](#) to get address from position
 - OpenCage has a multitude of interesting information to extract from an API call
 - **Address**
 - ZIP code
 - Country/city in **different granularities**
(up to parts of cities)
- 51.5266, -0.0798 → Shoreditch, London

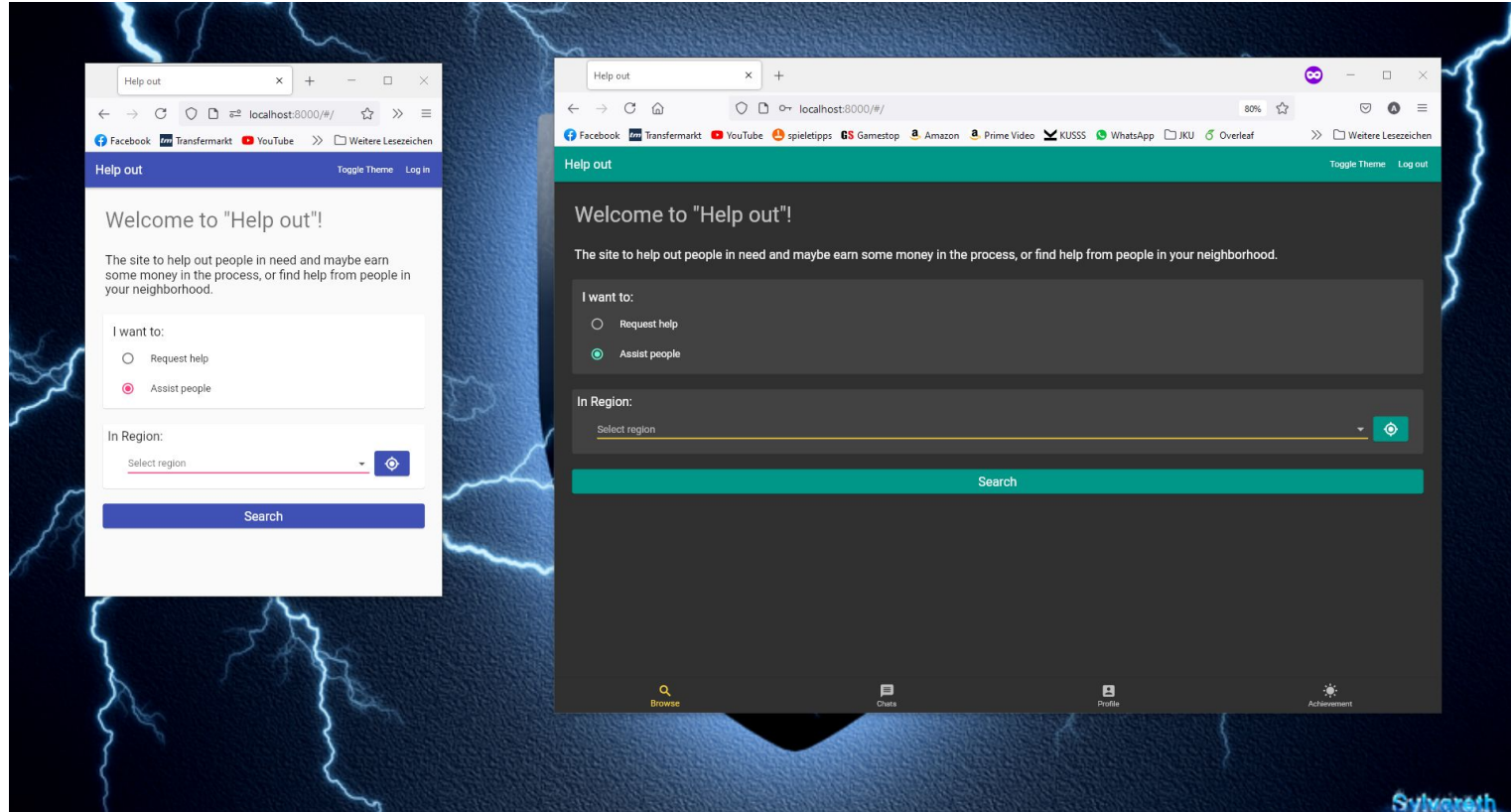
48.1599, 11.5761 → Schwabing, München

-33.4278, -70.6115 → Providencia, Santiago

Our Result



Live Demo



Our Vision



Can we do even better??

Where our journey continues... - The Site itself

- **Elderly people** are a small subset of all people that are **overlooked** but nevertheless in need!
 - People with disabilities (even small ones) are a valuable part of our society
 - Our vision: Make the website **more accessible!**
 - Compliance to **WCAG** (Web Content Accessibility Guideline) 2.1
 - Everyone benefits from it!
- Web alone is a **smaller** market compared to earlier times!
 - Our vision: Publish an **App** of our website!
 - Flutter allows **deployment and conversion** into native Apps
 - Only **small changes** are needed for full cross conversion
 - Also possibility of PWAs!



Where our journey continues... - The Content

- **Gamification aspects**
 - So far, the groundwork has been done
 - **Goal:** Establish exciting context for users to **motivate** for engagement
 - Also combine achievements with extra goodies (Deals with Partners)
- **Categorization**
 - **Goal:** Try to **improve search** by narrowing down activities (hobbies, shopping, ...)
 - Easy to do, requires only small changes in DB (additional attribute for user)
- **Topic/Request-based system**
 - So far, focus was set on **establishing relationships** between users
 - **Goal:** Assign **chats to requests** (ex.: User A - Request 1) to improve experience
 - Challenge: Let **system handle most work** (table linking user - request - chat) and keep UI simple!

Thank you for your attention!



And follow us on Github!
**[https://github.com/matwoess/
helpout](https://github.com/matwoess/helpout)**